

Utah Department of Transportation Traffic Management Division

June 2017

Monthly Report



2060 South 2760 West Salt Lake City, Utah 84104 801-887-3710 www.udottraffic.utah.gov

Mission of the Traffic Management Division

- To Support UDOT and the Department of Public Safety to Achieve Zero Fatalities.
- To Help Provide Reliable and Efficient Travel Throughout Utah.
- To Provide Useful and Timely Real-time Traffic Information.
- To Work Together with Other Government Agencies to Serve the Public.
- To Provide Excellent Customer Service.

Traffic Operations Center



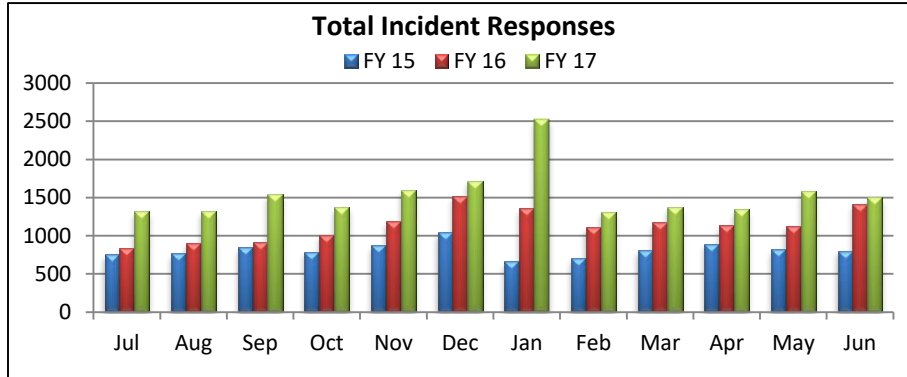
Field Devices Summary

Freeway PTZ Cameras	397
Surface Street PTZ Cameras	518
RWIS & Contracted Weather Cameras	222
Viewable Detection Cameras	39
Total Cameras	1,176
Freeway VMS	100
Surface Street VMS	50
Portable TOC VMS	7
Legacy Trucks Prohibited VMS	21
Variable Speed Limit VMS	15
Chain-Up / Avalanche Warning Signs	25
Total VMS	218
HAR (27 permanent/5 portable)	30
RWIS	101
Ramp Meters	70
TMS	581
Express Lane Plazas	73
Traffic Signals	1,803

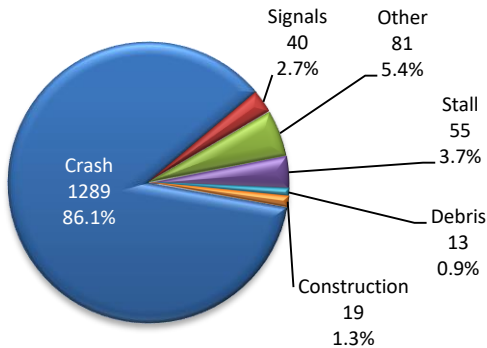
Operations Summary

VMS Messages Displayed	102,055
Signal Timing Work Orders	45
Signal Maintenance Work Orders	159
All New Work Orders	474
Work Orders Closed During the Month	404
Incident Responses by the TOC	1,497
Incident Duration Average Minutes	64
IMT Assists	2,478
Website Visitor Sessions	271,130
511 Calls	10,575
Weather Desk Calls	166
Ask Commuterlink Questions	63
Average Speed AM Peak (07:00-08:00)	67.37
Average Speed PM Peak (17:00-18:00)	60.43
Incidents Using Signal Timing Assistance	223
UDOT Traffic Followers and Re-tweets	832,386
UDOT Traffic App Total Downloads	4,963

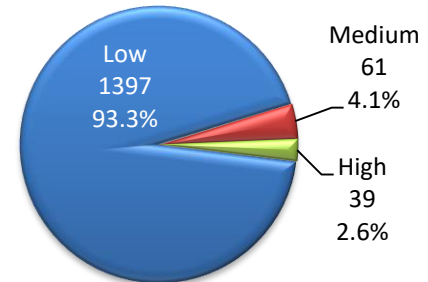
An incident response occurs each time an incident is recorded in the ATMS system. These can be of several types, including crash, construction, debris, stall, congestion, or other. Crashes are separated into three subcategories: property damage, personal injury, and fatal. Each time an incident is created, information is sent to the 511 system, the website, and to the public through email alerts. An incident remains active until it has been completely cleared from the roadway.



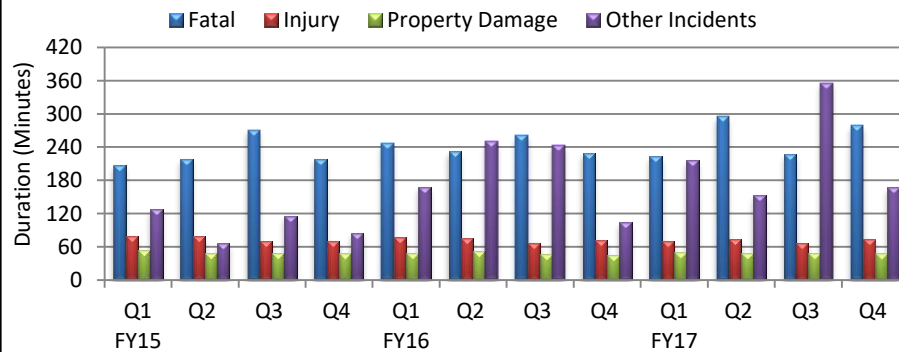
Incidents By Type for June 2017



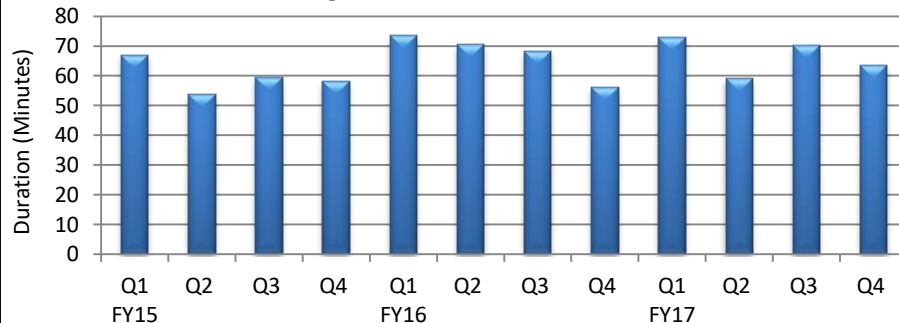
Incidents by Severity for June 2017



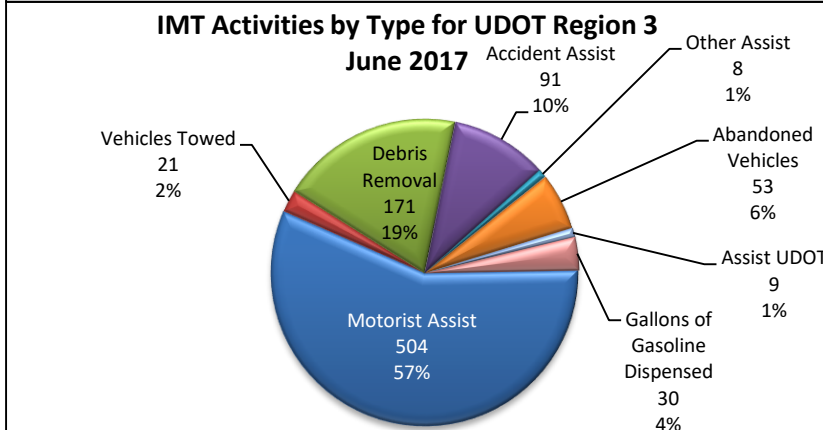
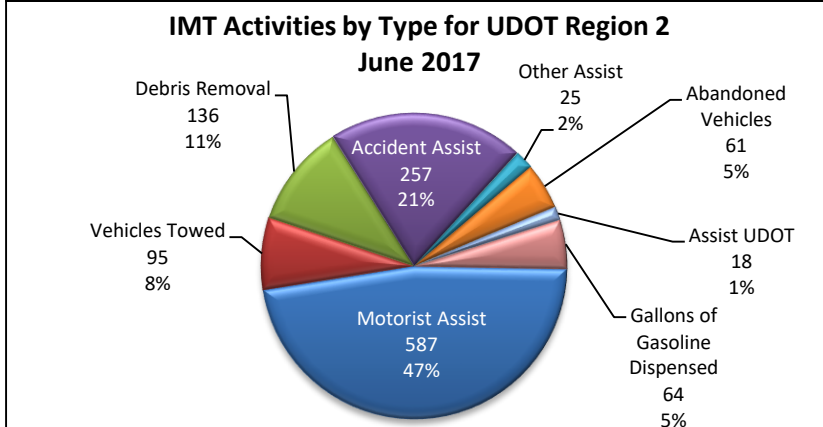
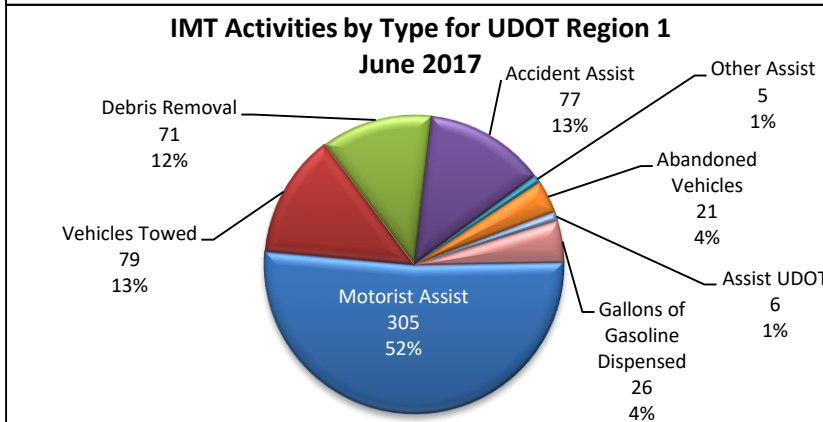
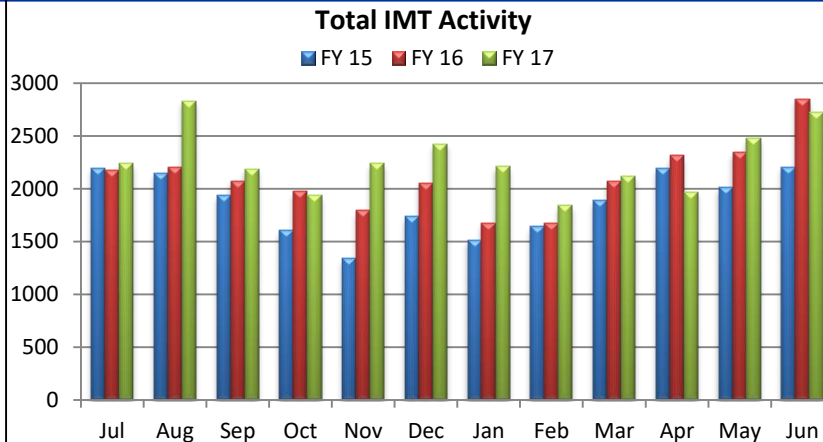
Average Crash Duration



Average Duration of All Incidents



Incident Management Team (IMT) Activities



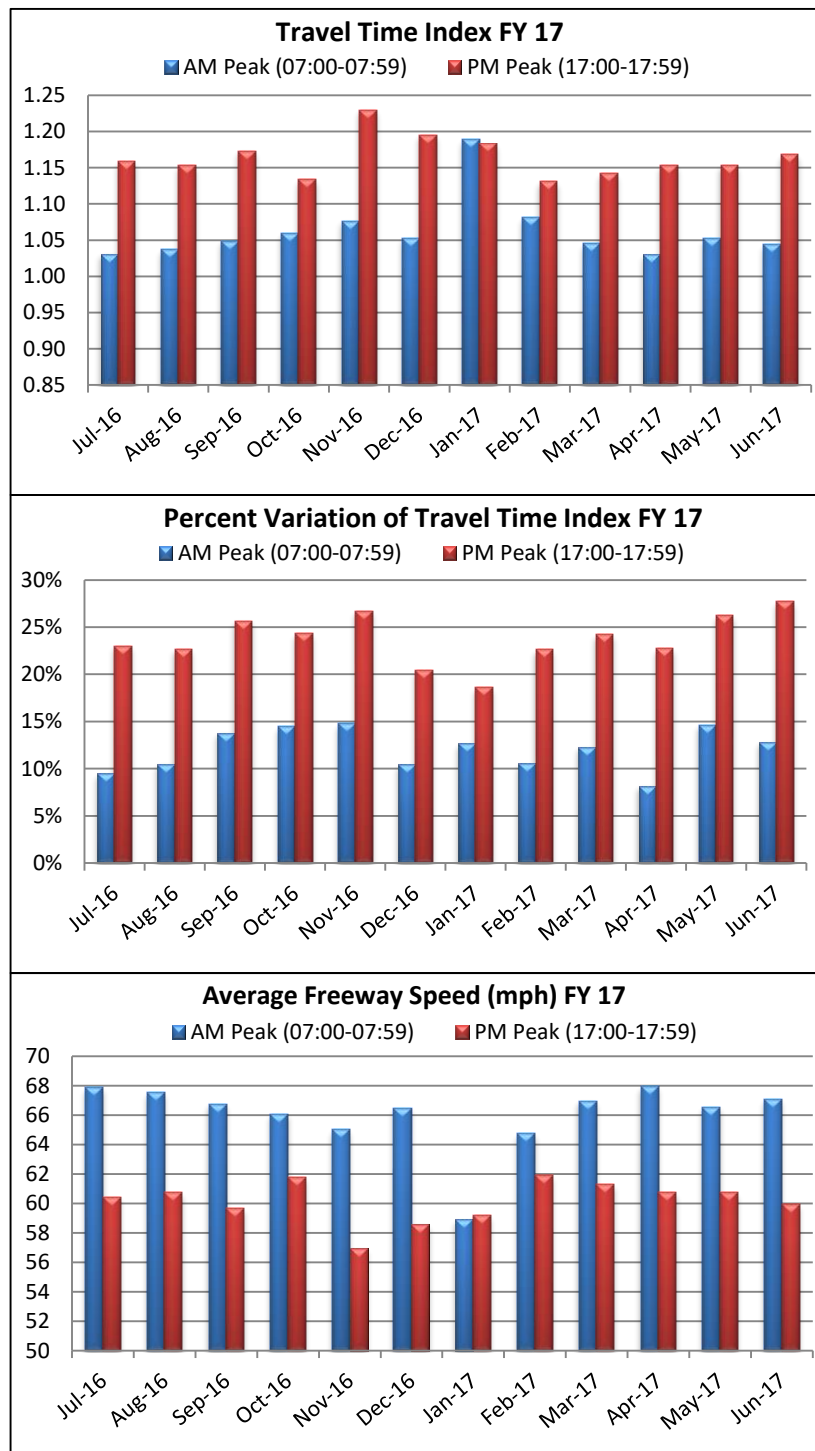
Freeway Traffic Level of Service

Freeway flow measures are taken from the Traffic Monitoring Stations (TMS) located throughout the Wasatch Front. As more TMS sites are installed throughout the state, they will be included in these performance measures.

Travel Time Index: This measure of mobility is based on freeway speeds and is weighted by segment lengths and by the traffic volume. A value of 1.0 represents free-flow speeds. A value of 1.12 indicates that the average vehicle trip takes 12% longer than if that were the only vehicle on the freeway.

Percent Variation of Travel Time Index: The percent variation in the Travel Time Index is a measure of how much the Travel Time Index changes from day-to-day.

Average Freeway Speed: The freeway speed is weighted by volume.



Freeway Traffic Level of Service

Peak Travel Time Index by Segment for June 2017

(+) Direction (NB, EB, Clockwise)

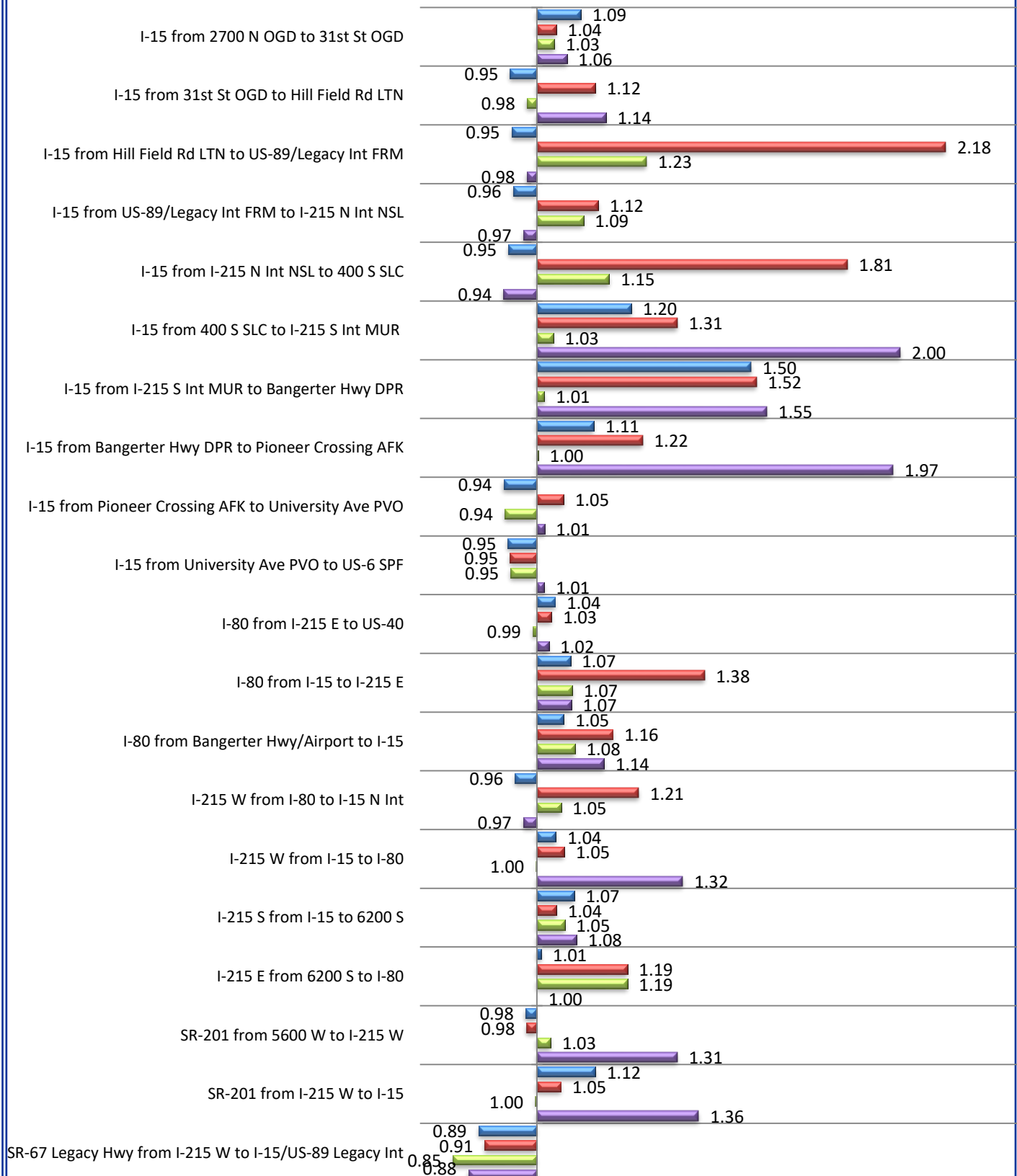
(-) Direction (SB, WB, Counter Clockwise)

■ AM Peak (07:00-07:59)

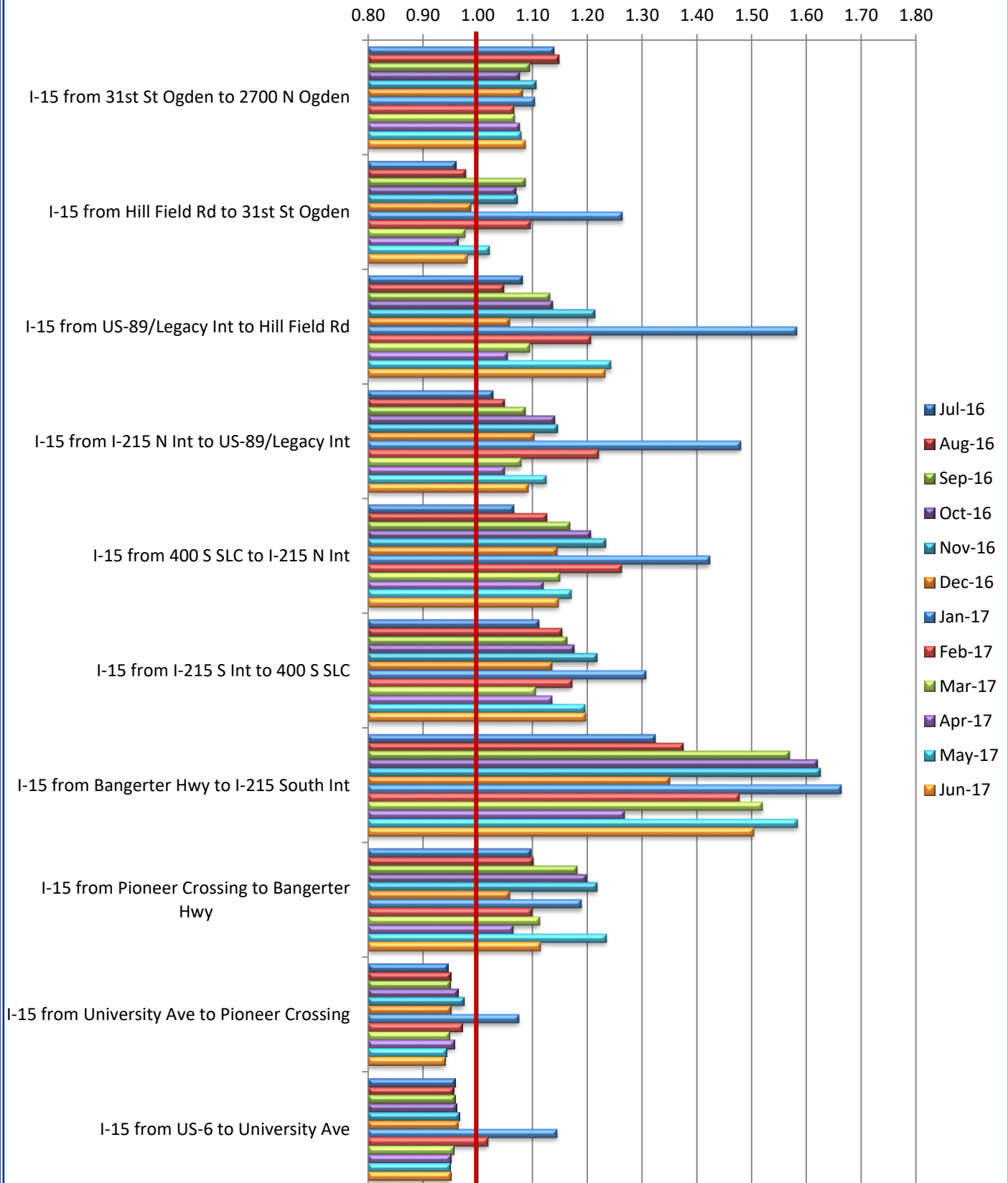
■ PM Peak (17:00-17:59)

■ AM Peak (07:00-07:59)

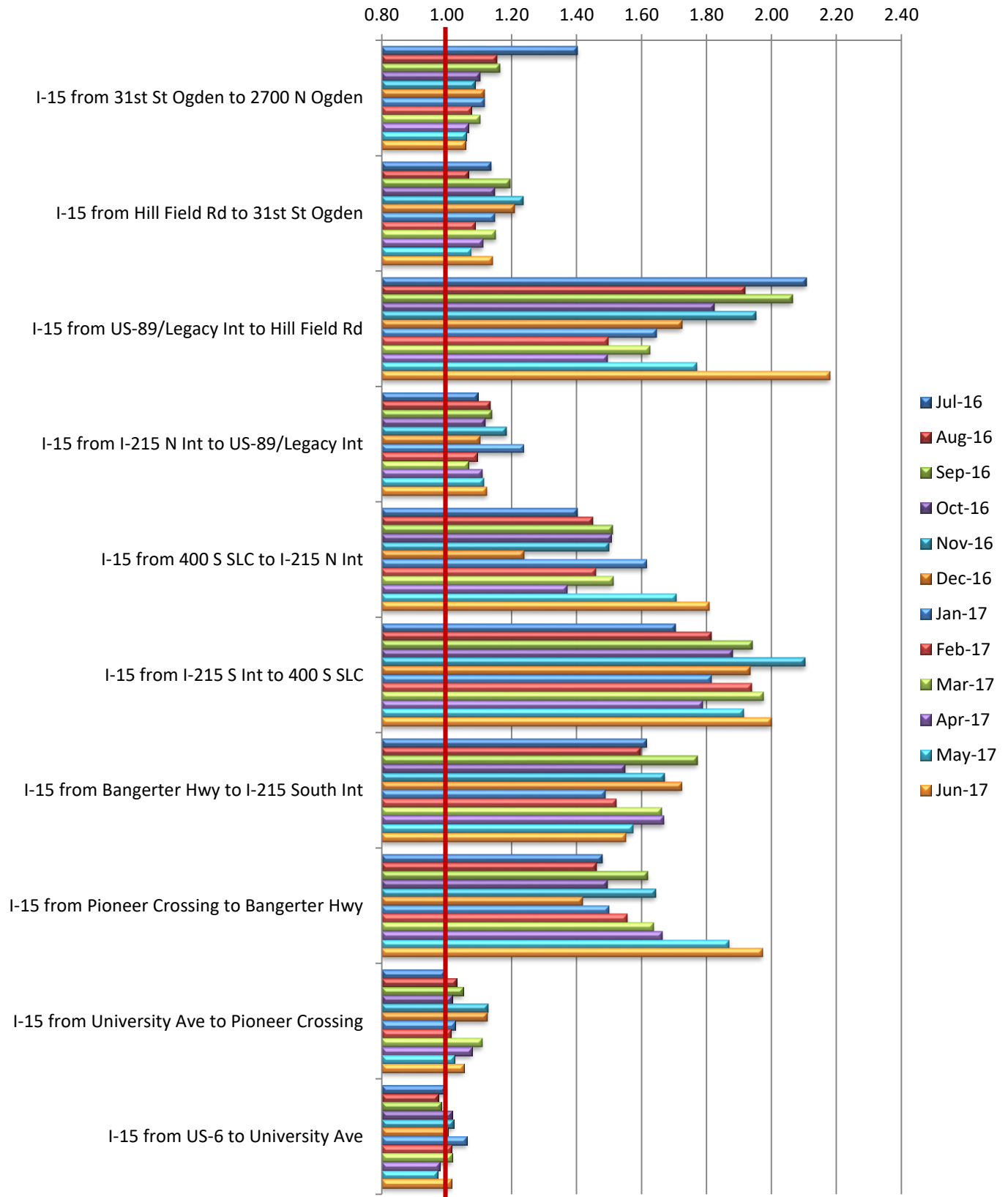
■ PM Peak (17:00-17:59)



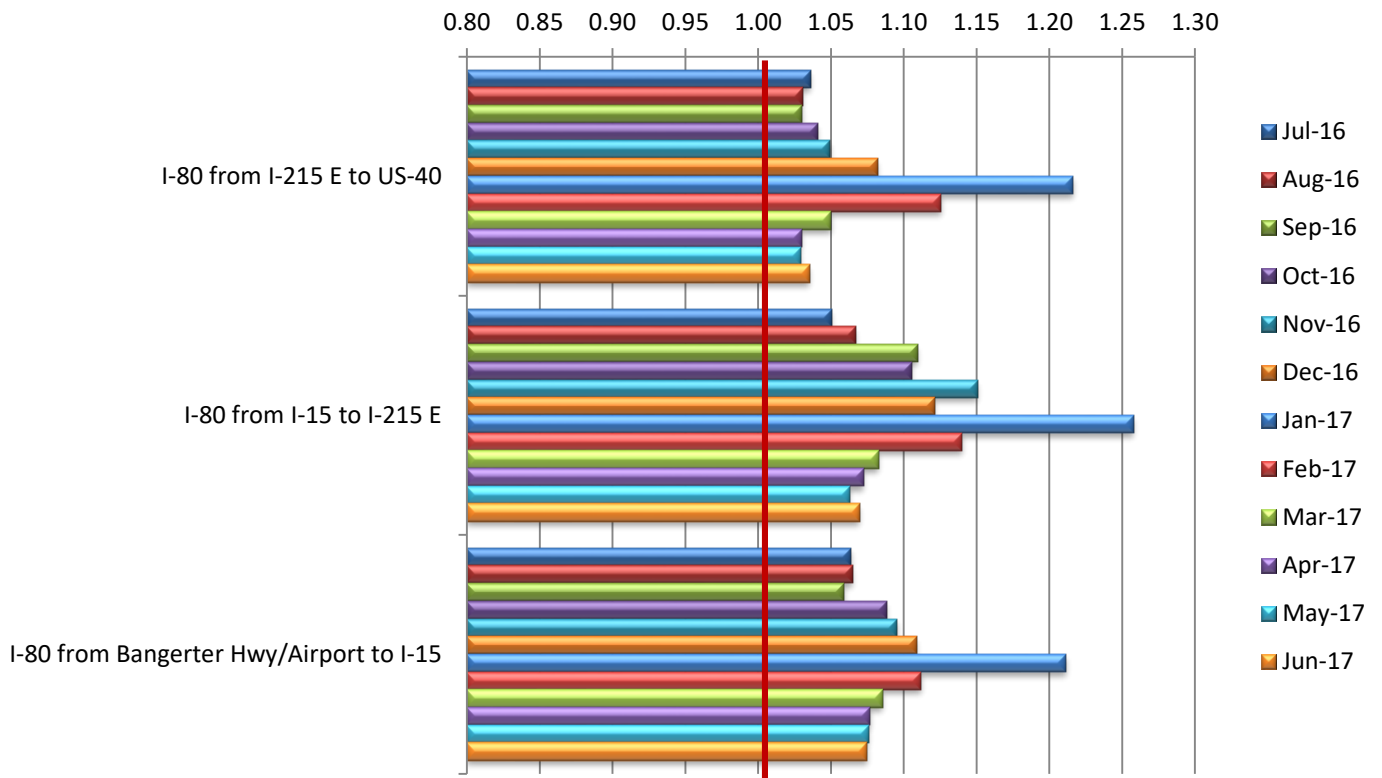
AM Peak Travel Time Index for I-15 FY 17



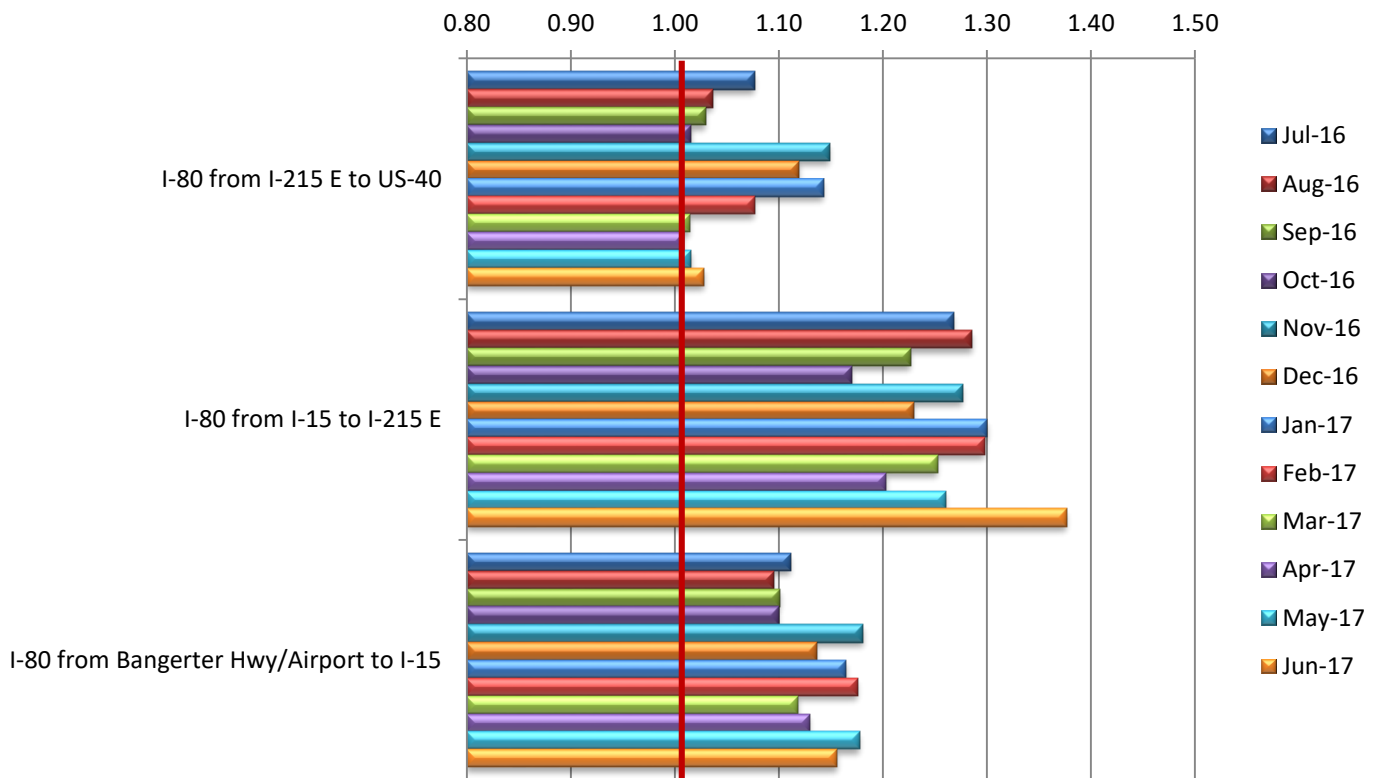
PM Peak Travel Time Index for I-15 FY 17



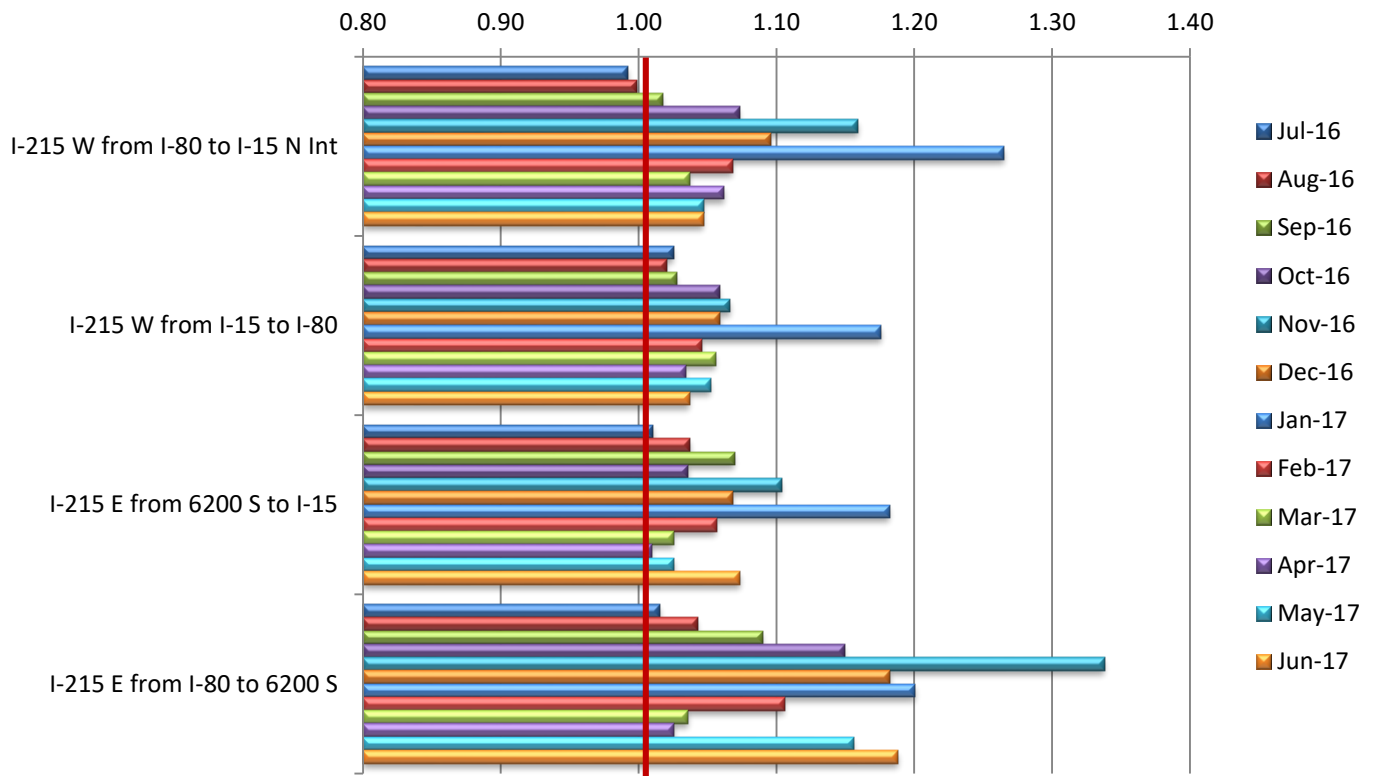
AM Peak Travel Time Index for I-80 FY 17



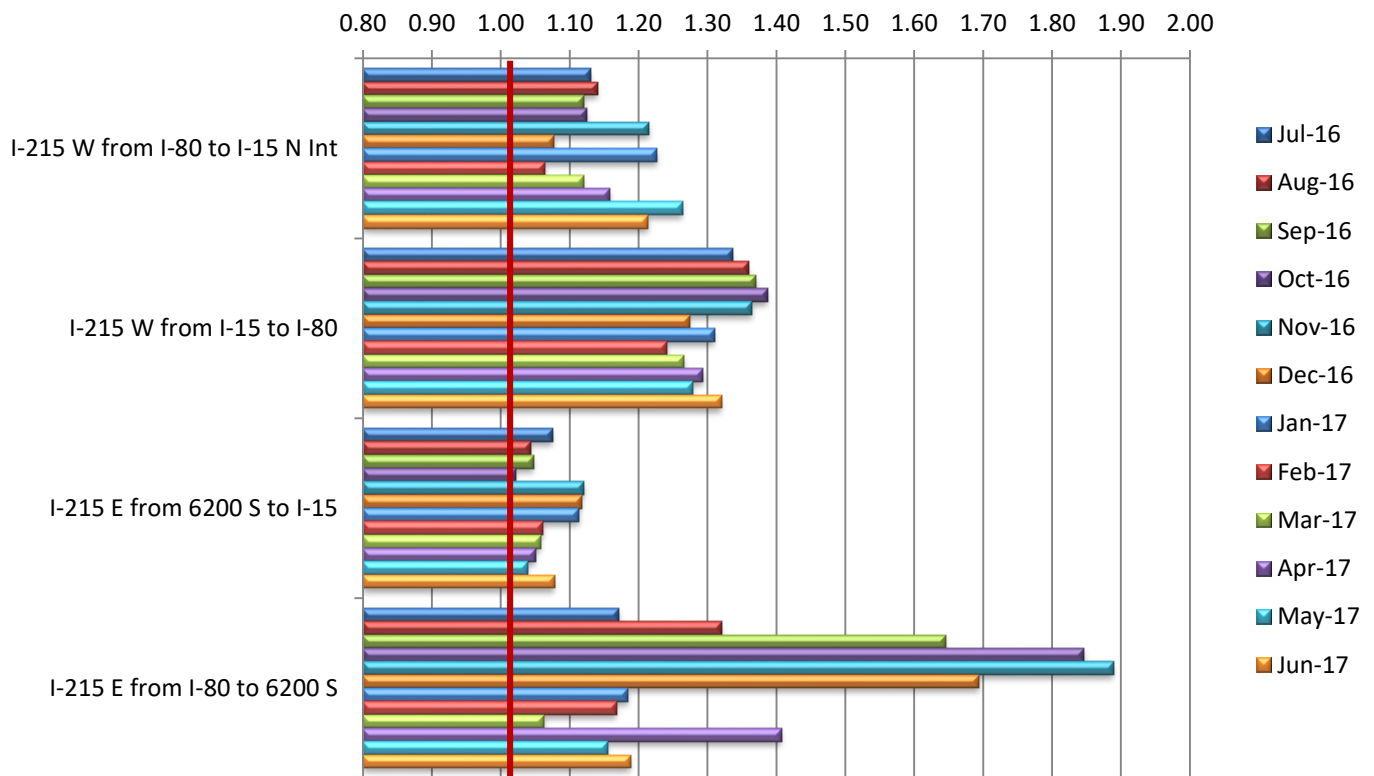
PM Peak Travel Time Index for I-80 FY 17



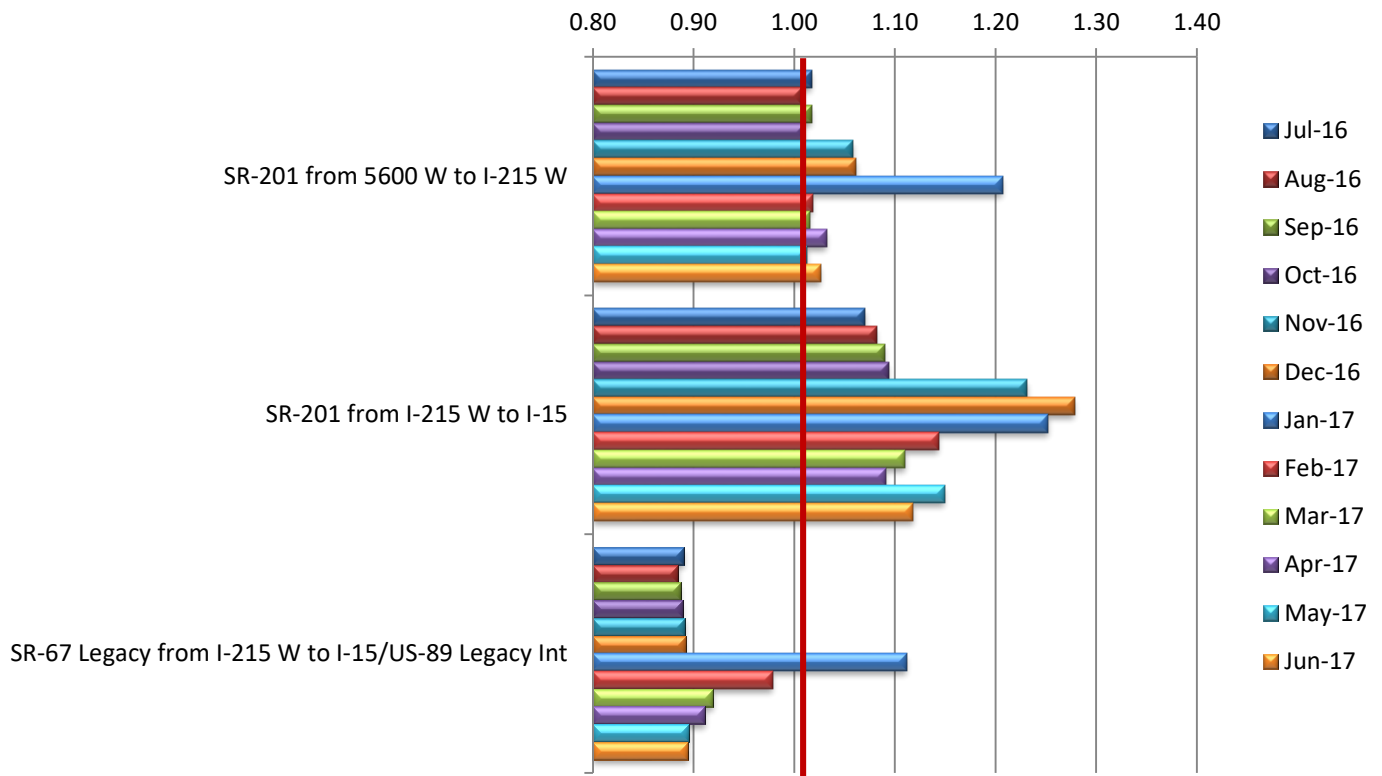
AM Peak Travel Time Index for I-215 FY 17



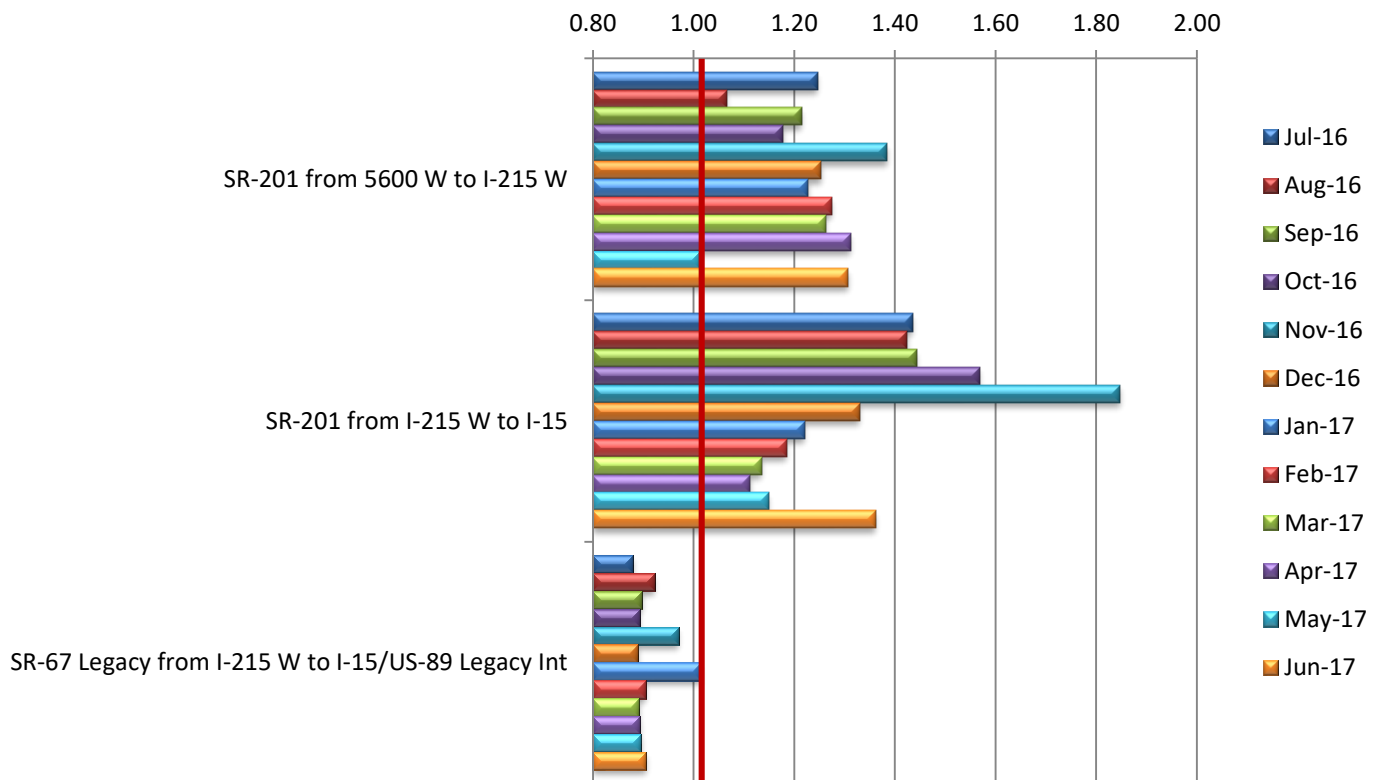
PM Peak Travel Time Index for I-215 FY 17



AM Peak Travel Time Index for SR-201 and SR-67 Legacy Hwy FY 17

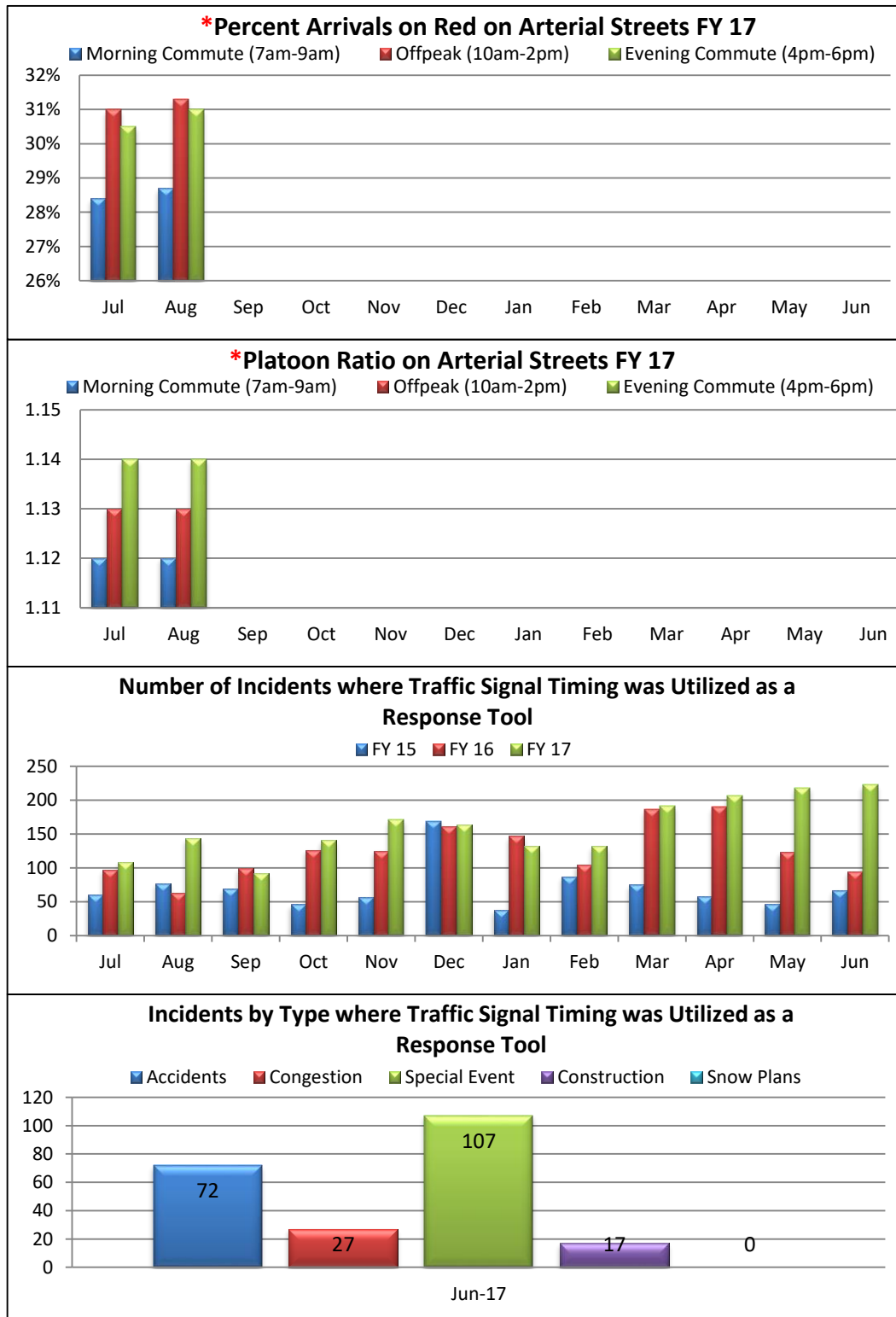


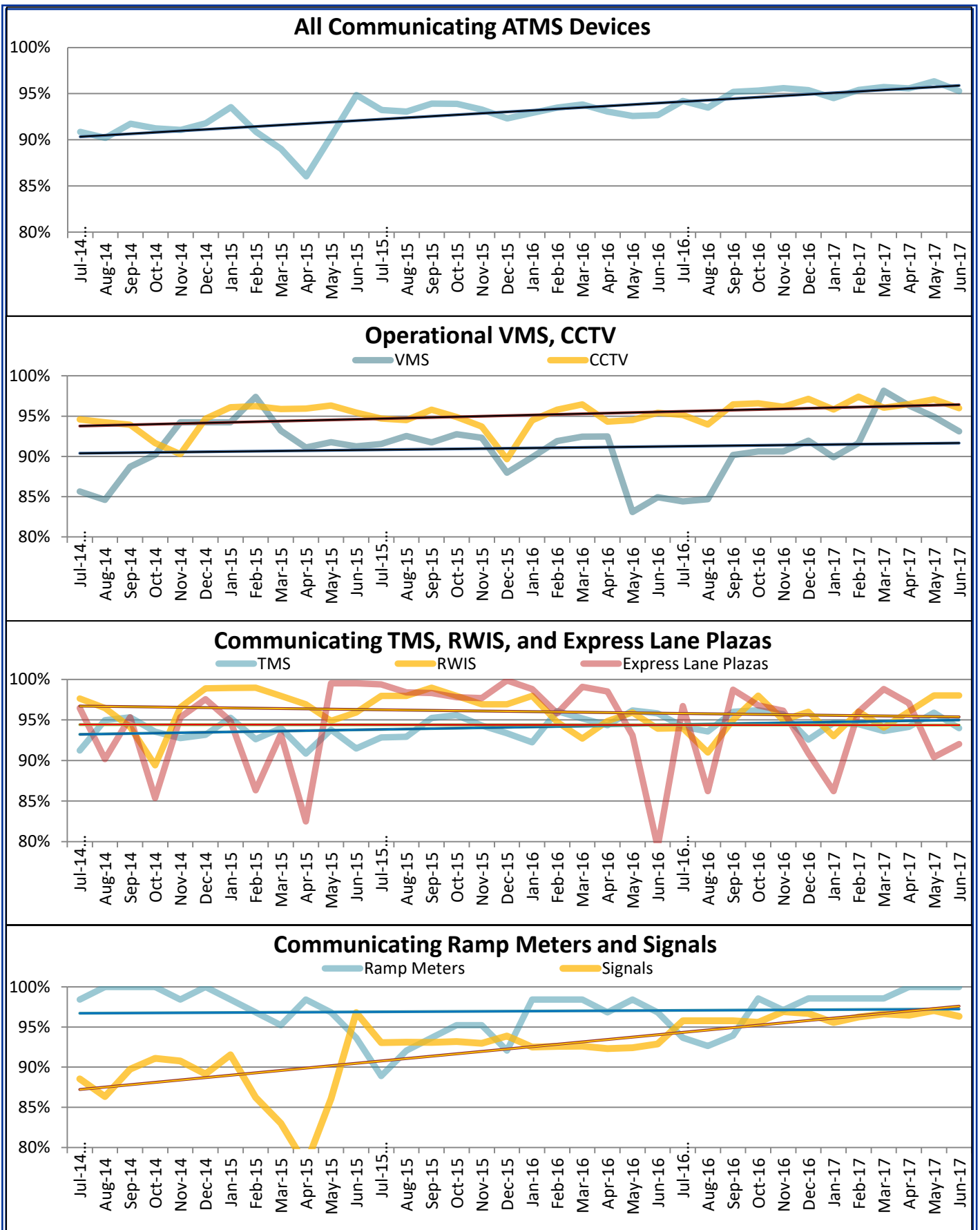
PM Peak Travel Time Index for SR-201 and SR-67 Legacy Hwy FY 17

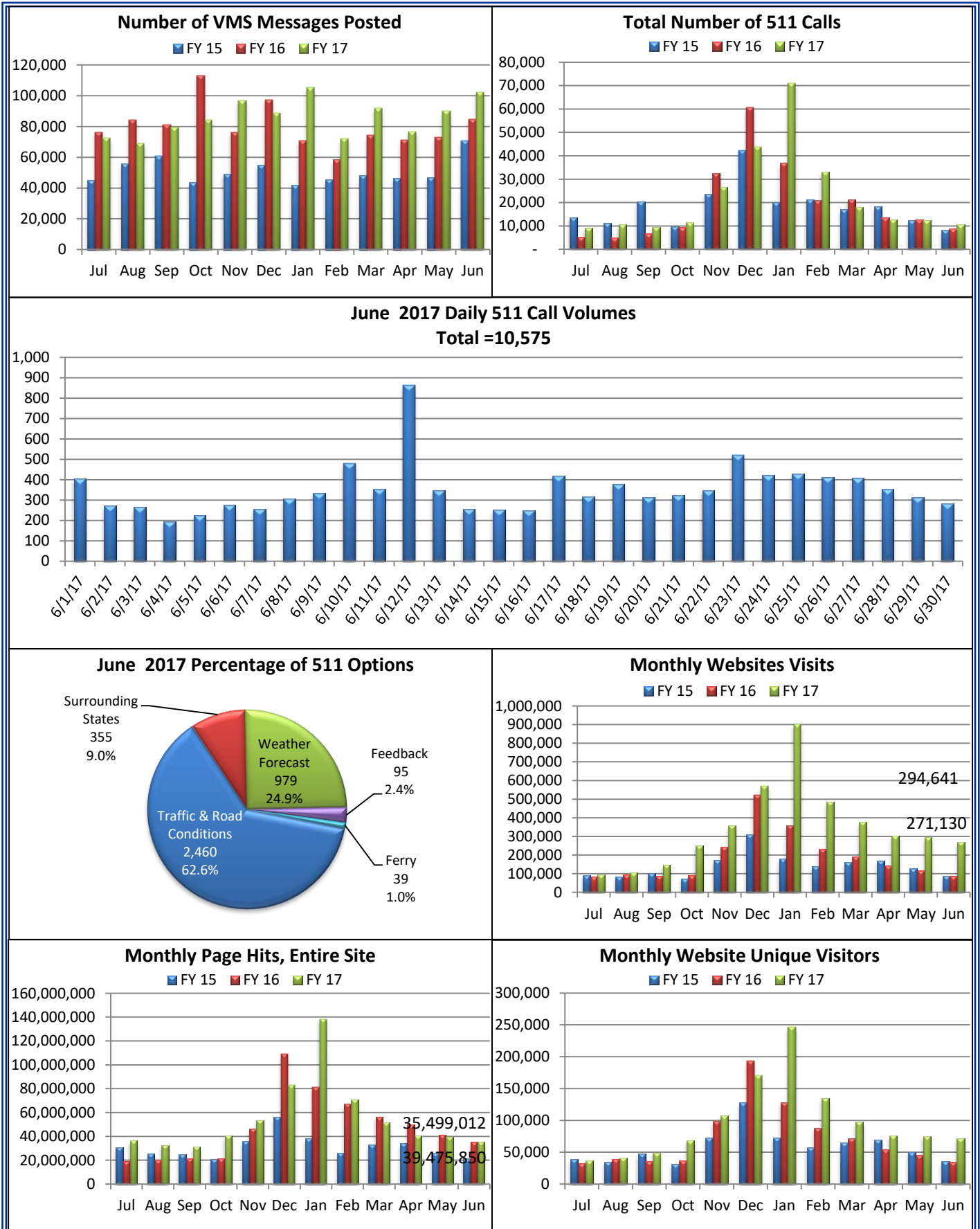


Arterial Traffic Level of Service * No data available since Aug 2016

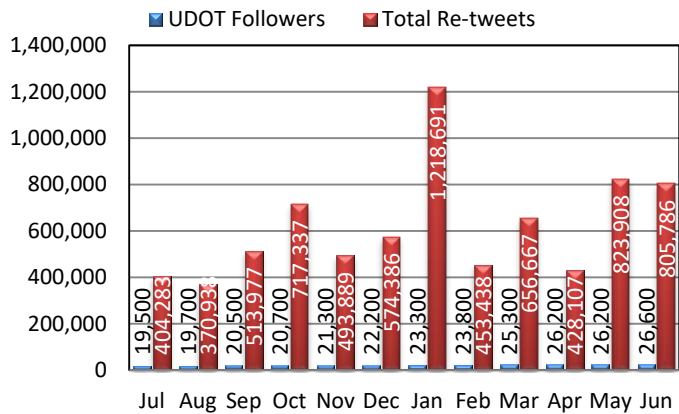
The percent arrival on red along the arterial statistics are generated automatically through the automated traffic signal performance measures, which show real-time and historical functionality at signalized intersections. The system automatically time-stamps when each vehicle arrives at the intersection and then compares the detection time-stamp if the phase was green or red. The percent arrival on red data is averaged over the 24 hours of the day and days in the month. . The lower charts shows the number of incidents where traffic signal timing was modified in order to help traffic flow around closed lanes, or to help relieve excessive congestion.



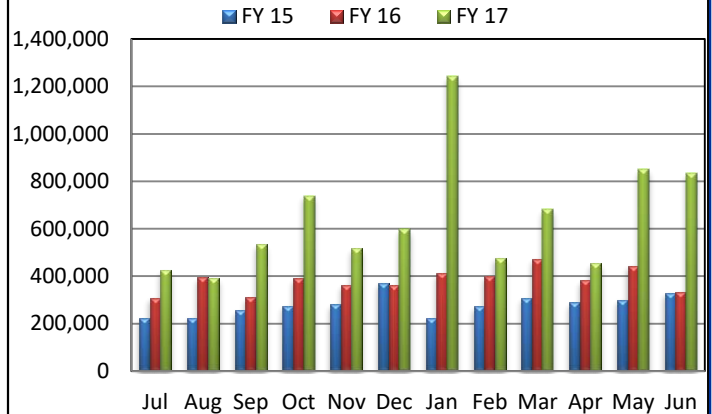




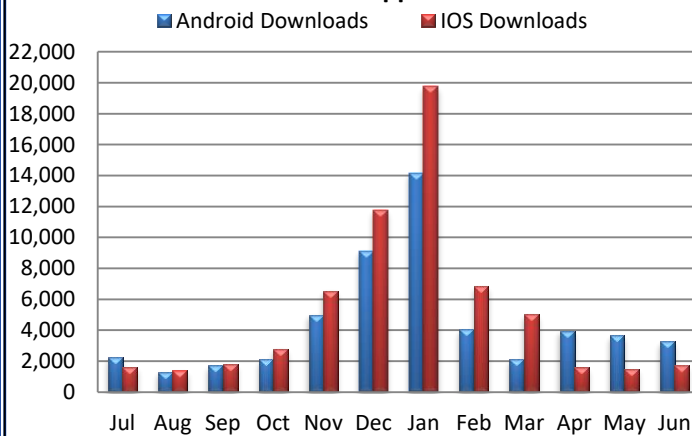
UDOT Traffic Twitter Activity - FY 17



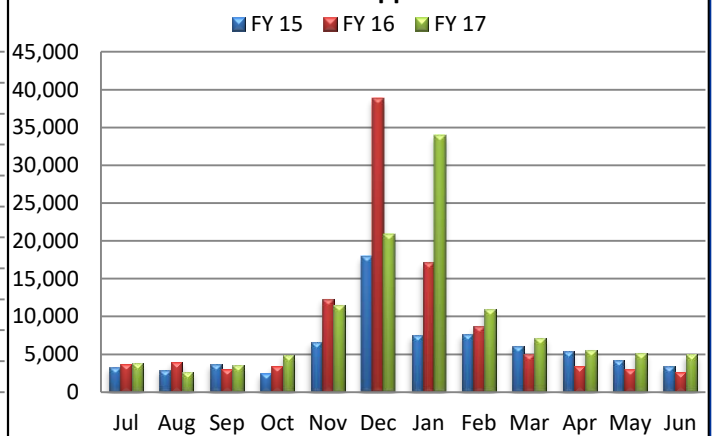
UDOT Traffic Followers and Re-tweets



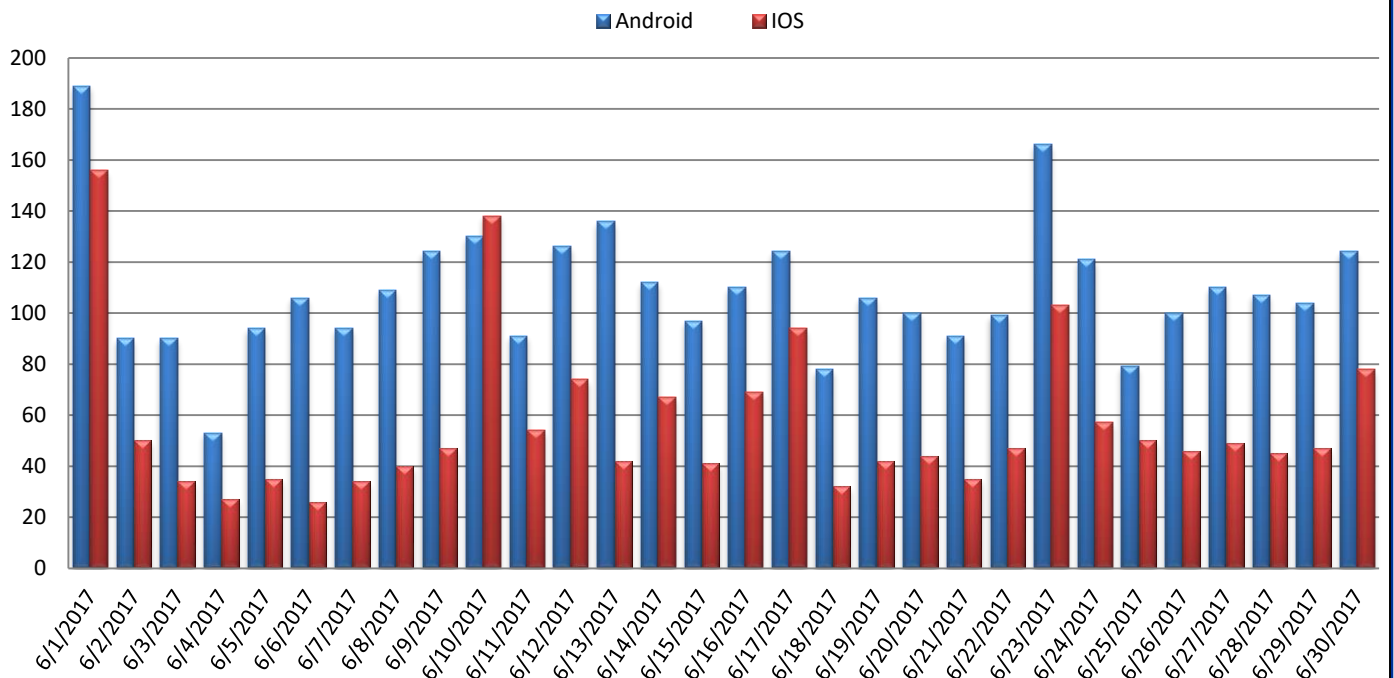
UDOT Traffic App - FY 17



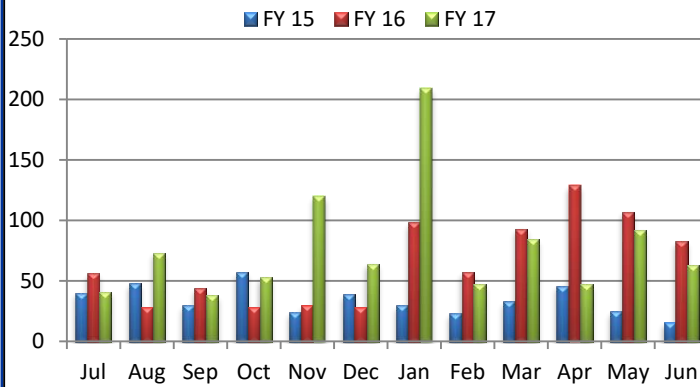
UDOT Traffic App Downloads



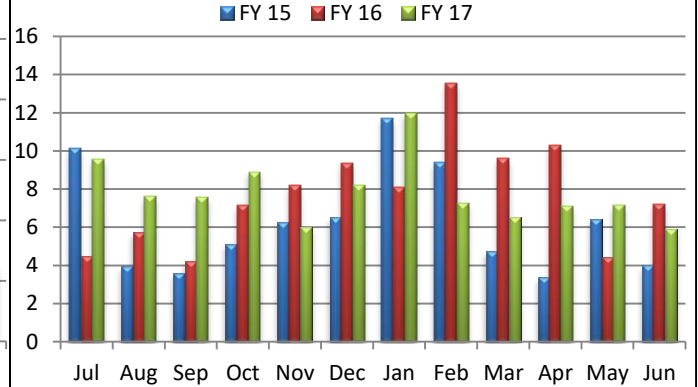
UDOT Traffic App Downloads - June 2017



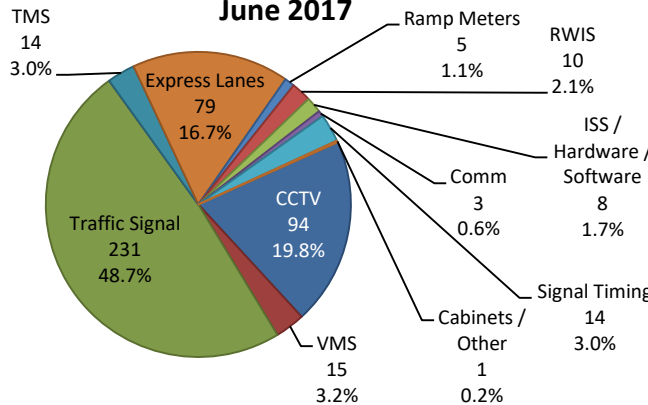
Number of "Ask UDOT Traffic" Questions



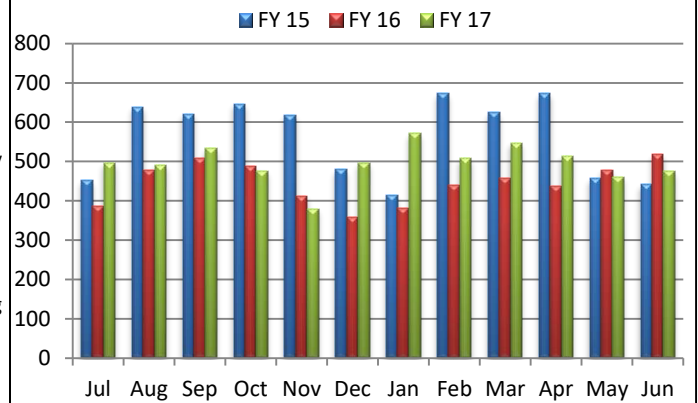
Overall Average Work Order Turnaround Days



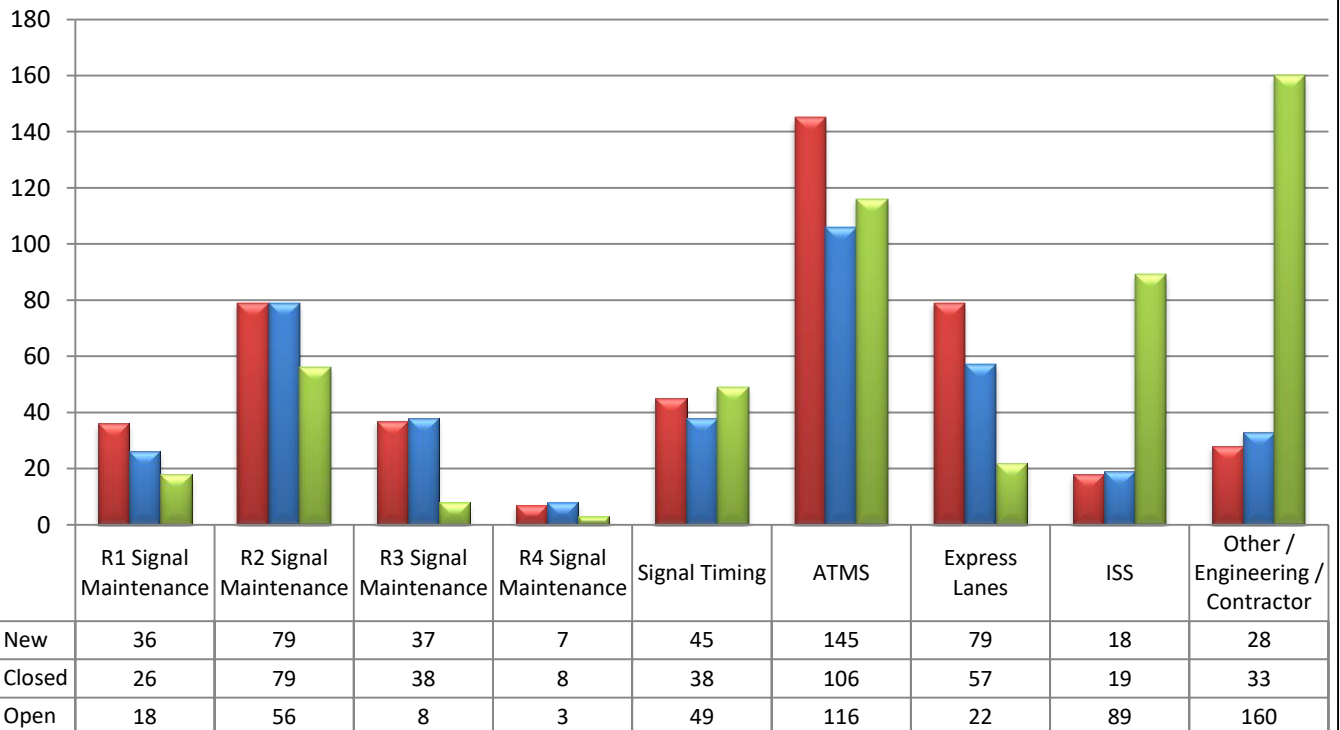
New Work Orders by Device Type
June 2017



Number of New Work Orders



Work Order Statistics by Group - June 2017
Total New = 474 , Closed = 404 , Open = 521





CONTROL ROOM

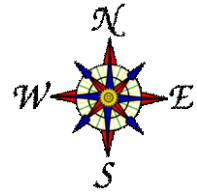
The Control Room Staff supported the Young Living Convention, affecting high priority routes with high volumes of traffic and an event at Rice Eccles Stadium. UDOT/UHP Safety Fair along with the Traffic Operations Center deployed portable VMS. Support was also given for the Utah Pride parade, Drop 13 Half Marathon, and Taylorsville Dayz parade. The Control Room used VMS to support the Brian Head wildfire restriction for “No Drones Allowed” effort. There were several high-impact road work projects including three full closures of I-80. The Control Room managed 1,497 incidents.

TRAVELER INFORMATION

The traveler information team assisted with the ATCMTD grant opportunity, hosted the kickoff for the UDOT Women's Mentorship program, represented the TOC at the UDOT/DPS Safety Fair, led the efforts for traffic management for the Utah Championship Golf event and also for the upcoming Utah Fallen Officer Memorial ride. Assistance was given for the UTA/UDOT Rail Crossing Outreach Initiative.



UDOT WEATHER GROUP



The UDOT Weather Group had 128 overall UDOT weather interactions, 55 outgoing weather alerts, six NWS collaborations, and two road weather alerts.

Climatology

June was a very dry month for the entire state with all locations being below average. No rain at all fell in many places in southern Utah, including Cedar City and St. George. This lack of rainfall hurt firefighting efforts as many wildfires began, including the Brian Head fire, which continues to burn. The entire state also experienced above average temperatures. It was the 3rd warmest June on record for the Salt Lake Airport.

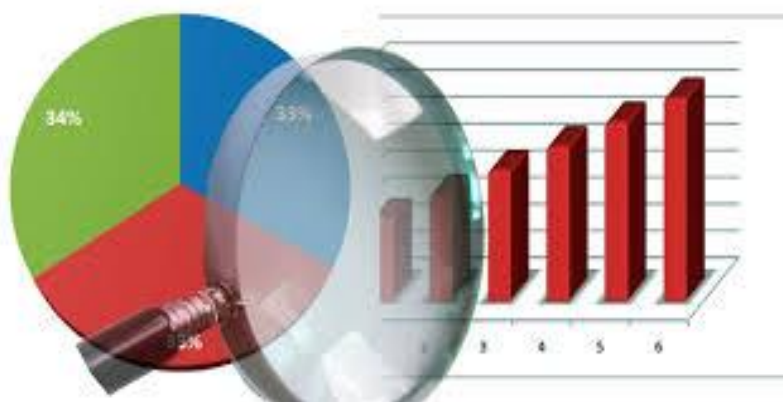
Weather Operations

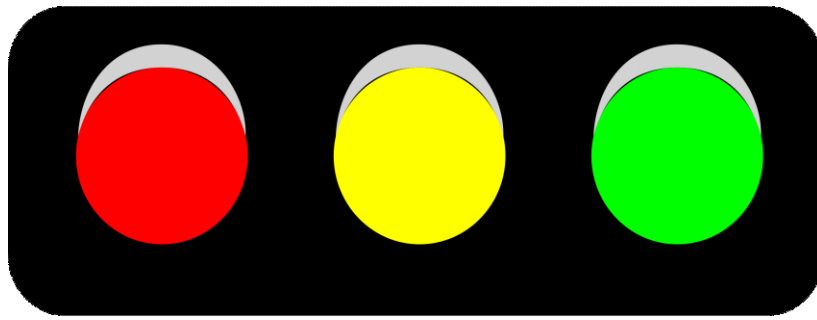
The Weather Group met with Mary Erickson, Deputy Director of the National Weather Service, at the Salt Lake City National Weather Service office to discuss the Pathfinder project and how the private sector, National Weather Service, and UDOT collaborate. National Weather Service employees also spoke afterward about future changes in their operations. There was one tour of the TOC Weather Operations room by FHWA employees for a VSL peer exchange.



TRAFFIC OPERATIONS AND REPORTING

- Participated in the Sandhill University Parkway analysis.
- Governor's performance metric.
- Congestion Reporting.
- 3rd Party Data and Analytics procurement.
- I-215 Redwood DDI review.
- Life on State.
- I-15 600 N Congestion Analysis.
- 4700 South 2700 West analysis.
- Annual performance reviews.
- Bangerter ramp metering turn-on.
- Bluff Street MOT design.
- MP 11 EA.
- 1200 E Lehi Main St analysis.
- Kearns Blvd signal timing.





TRAFFIC SIGNAL OPERATIONS

Region 1 changed over the three signals at 650 North and Main St, I-15 NB, and I-15 SB.

Region 2 completed retrofitting all cabinets in Region 2 to allow plug-in generators, and retimed Redwood Road from 5600 South to 13400 South in the AM and off-peak periods. A new signal was installed in Riverton at 12600 South & Park Avenue. New left-turn signals were added with radar detection at 7200 West & 3500 South in West Valley City. Support was given for the Mountain View Corridor construction team with a temporary signal turn-on at 5600 West & 4100 South during rebuild and road widening.

Region 3 turned on a new traffic signal at 800 South & Geneva Road in Orem, replaced the cabinet and rebuilt the signal at University Avenue & 920 South, and replaced the cabinet and rebuilt the signal at University Parkway and Freedom Boulevard. Region 3 replaced the cabinets and rebuilt the signals at US-6 & 2550 East in Spanish Fork, installed Matrix detection, and rebuilt the signal at East Bay Boulevard & 180 East. Rebuilt the signal at 1860 South and Novell Place, rebuilt part of the signals at University Parkway, 200 West, University Parkway, and 400 West in Orem. After the new signal installation on the Geneva Road Corridor in Orem, the signal was re-timed.

Region 4 hooked up communications to 11 traffic signals, six CCTV cameras, and a VMS in Hurricane & La Verkin. Relocated the signal pole at 1000 East & St. George Boulevard for roadway widening. Generators were used to power five signals in St. George during a power outage. All ground PMs and MMU testing in Richfield, Moab, Price, Wellington, Mt. Pleasant, Ephraim, Huntington, Delta, Salina, Beaver, Bryce Canyon, & Monticello were completed.

Region 1



- **Statewide Signal Interconnect:** Is under construction.
- **US-60 and 2700 E:** Integration. 30 day burn in. Complete and in Close out.
- **30th Street and Harrison:** Integration. 30 day burn in.
- **650 N. I-15 Clearfield:** Undergoing 30 day test.
- **Sardine Canyon US-89 from Brigham to Wellsville:** Has been advertised.
- **I-15; Farr West to Brigham:** Traffic Monitoring Station (TMS) improvements and VMS installation. Under construction. VMS being designed. Final plans have been completed and approved. The VMS has completed testing and is available to contractor.
- **I-15 and Pioneer Ramp (13216):** Integration. 30 day burn in.
- **SR-193 1550 West (13949):** Under construction. This project is in close out.
- **Clearfield 650 N. I-15 (11092):** Integration. 30 day burn in.



Region Two

- **I-15 SB Lane Gain:** RFP development is still underway to compile all the discipline areas for ATMS. This project will impact nearly a dozen CCTV's, four VMS', several TMS sites, RWIS, ramp meters, and the express lane from south of the SR-201 to 12600 S.
- **I-15 NB On-Ramp Widening at 9000 S:** The on-ramp from 9000 S to I-15 is being widened to accommodate additional queue storage. This will be the first four lane on-ramp to be metered. This will also move the existing CCTV up the embankment to the mainline since it was in the area of the needed widening, and it will improve the view of mainline I-15.
- **Mid Valley Highway – Tooele County:** The Mid Valley Highway had a design kickoff on the 4.5 mile new roadway. This will connect at the SR-138 Junction between Erda and Grantsville, and connect a couple miles west of the existing Lake Point Interchange. This will ease the burden on SR-36 at the Lake Point Junction. Fiber, cameras, and VMS are planned for this new highway.

Region 3

- **PIN 12805 - US-40 CCTV/Signal connections:** STRATA informed us they have installed the connection electronics for five new locations. US-40 (Main St) @ SR-87 (Center St) SIGNAL – Duchesne. US-40 @ State St. SIGNAL– Roosevelt. US-40 @ 2000 West SIGNAL/CCTV – Roosevelt. US-40 @ 1500 East SIGNAL/CCTV – Roosevelt. US-40 @ 2100 West SIGNAL/CCTV – Vernal. Integration scheduled for July. Three more signals on their list to complete this winter.
- **PIN 11415 - US-189; State Park to Rock Cut passing Lanes:** Power connection issues resolved. LFOT scheduled first week of July. 30 day burn-in will immediately follow.
- **PIN 10266 - Provo; SR-256; 800 East to Univ. Ave BRT:** Contractor requested the rest of the ATMS State Furnished Materials (7 ea. CCTV's). Ordered materials.
- **PIN 10137 - Provo; US-89 (300 S); 100 East to 700 East: NO CHANGES:** Additional micro duct and fiber installation to be done on a separate procurement contract planned for June.
- **PIN 13244 - Ut. Co. Signal Interconnect: NO CHANGES:** Project under construction. Fiber installation on US-89 between Springville and Provo; redundant path into Provo City Public Works ongoing.
- **PIN 14149 - I-15 Fiber; Payson to Santaquin:** Generated Integration WTO. Ordered ATMS State Furnished Materials. Project completion anticipated the end of July.
- **PIN 13061 - American Fork; US-89 @ Main St./200 East:** Project under construction.
- **PIN 14573 - Payson; 1400 South State St (SR-198) Signal/CCTV:** Utopia committed to having their connection completed by the end of June. LFOT and 30 day burn-in anticipated early July.
- **PIN 10689 - Saratoga Springs; SR-68 Centennial Blvd to Pioneer Crossing:** Project in design.
- **PIN 14956 - Orem; SR-114 (Geneva) @ 800 South Signal/CCTV:** Construction completed accept for the splicing. LFOT and 30 day burn-in anticipated early July.
- **PIN 13668 - Lehi; Main St @ US-89/State St Signal(s):** Bids came in too high. Incorporating 2017 specs to re-advertise in Sept/Oct.
- **PIN 12158 - Lehi; I-15; Lehi Main St to SR-92: NO CHANGES:** Project in Design.
- **PIN 11982 - Saratoga Springs; SR-85 (MVC) SR-73 to 2100 North:** Project in Design. Central Utah Water requested adding conduit to the project for their use.
- **PIN 13421 - Springville; SR-77 (400 S); S.F. Main St. to I-15: NO CHANGES.**
- **PIN 9994 – US-89; 220 South P.G. to 500 East A.F. : NO CHANGES:** Project in design.
- **PIN 15275 – Saratoga Springs; SR-68 Village Pkwy to Grandview:** Project in design. PS&E Scheduled for July.

(cont'd on page 22)

(cont'd from page 21)

Region 3

- **PIN 15234 – Midway; SR-113 (Main St.) @ SR-222 (Center St.) Signal:** **NO CHANGES:** Project in design.
- **PIN 14983 – Continuous Count Stations (CCS) Interstate/Arterial:** **NO CHANGES:** Anticipated advertisement August 2017.
- **PIN 14909 – Fiber; Vernal to Manila (US-191/SR-44):** Generated Concept Development WTO. Held a site visit and drove the route(s) to identify potential device deployment locations. Interviewed both Vernal and Manila Maintenance Shed Supervisors to incorporate their needs.

Region 4

- **St. George:** This project is near completion, except for some city and UDOT fiber coordination. The contractor is in the process of integration. Complete. We will be processing another WTO under a new PIN for more connections.
- **SR-9 Hurricane Signal interconnect:** 30 day burn in. Integration. We have been having problems with the radios. Looking for solution.
- **Fiber upgrade for US-6, Helper and Price Signal Integration:** 30 day burn in. Integration. This project is nearly complete.
- **I-70 in Richfield:** Has been integrated and turned over to Brad Cameron.
- **Bryce Signal:** The contractor is looking into the splicing and construction details and coordinating with the telecom. This has now been turned over to Brad Cameron.



ITS MAINTANENCE

ITS Maintenance Group integrated a new freeway CCTV, nine surface street CCTVs, one surface street VMS, 15 traffic signals, and removed one weather CCTV. A “Speed Limit Feedback Sign” was added as a new device type in AIMS.

ATMS MAINTENANCE

Field Team

The Field Team worked with Region 1 to locate and troubleshoot a CCTV junction box, helped set up a new communication hub in Hurricane and completed three field operations tests.

Lab Team

The Lab Team tested and repaired six ATMS devices, set up and tested 21 cabinets for various locations, tested four new VMS, and assisted Program Development Traffic Counting with NID sensor firmware upgrades.

Express Lane Team

The Express Lane Team worked on 79 various devices and performed PMs on 19 cabinets.





ITS Standards and Specifications

- HNTB continued to work on the ATMS Design Manual of Instruction (DMOI) by integrating the comments from the May meeting.
- Work continued on the ATMS Inspection Manual. Three meetings were held to create the “what to inspect” lists for the CCTV System, Non-Intrusive Detector (NID), and the Variable Message Sign (VMS). HNTB is attending the meetings and will refine the lists as needed and integrate pertinent topics into the DMOI.
- The ATMS Field Inspection check lists for the ATMS Cabinets, CCTV System and NID were taken to a field site and tested by UDOT TMD crews to verify all inspection requirements were covered.

Procurement

- The ATMS Cable bid package was advertised and awarded.
- The Betz Transformer was advertised and awarded.
- The Fuse and Fuse Holder contract for Highway Lighting and ATMS maintenance and operations was awarded. (May 22)
- Blyncsy representatives visited the TOC and the TMD staff and showed their traffic recording products.

Special Projects:

- The Metro Area VMS - Project F-15-7(335)290, was advertised and bids opened.
- The ITS Concept Report for five VMS in Region 1 was completed.
- Work began on the I-15 SB, Clearfield VMS Design Concept Report.
- A new Design Concept Report was initiated for a series of VMS needed in Tooele County.



It's that time again to pause and recognize the skills, dedication and achievement that you have shown over the past year. We met as a TMD Leadership Team a number of times to discuss performance and outcomes from our groups, and to determine who among such talented teams might be deserving of an individual award. The discussions were robust and spirited. You should know that your Leadership recognizes and appreciates the many great things you are accomplishing and the stewardship that you show, each and every day. Every one of you.

Please join me in congratulating the following individuals on being selected to represent the Traffic Management Division as our exemplary employees. I hope you will take the time to congratulate them on this well-deserved recognition.

Thanks,

Rob



Traffic Management Division, Employee of the Year



Grant Farnsworth is the Traffic Management Division's 2017 Employee of the Year. Grant's primary responsibility is to support the Regions with operational analysis of proposed projects including micro-simulation analysis, user cost development and maintenance of traffic support. In addition to the support Grant provides to the regions he is also leading the department's effort to develop a freeway performance measurement program. Progress on the program is found here: <http://udottraffic.utah.gov/freewayperformancemetrics/> As part of the effort in managing the freeway performance measurement program, Grant worked with the Governor's Office to develop the Governor's Success Framework Metric for freeway performance, and maintains it on a monthly basis.

In addition to his creativity and technical talents, Grant is a great team member. Grant is always willing to help others be successful, and accepts every challenge given to him with excitement and a smile. Grant is a dedicated employee that is not bound by the typical 9-5 work day. There are several instances when there have been media or other requests after hours to provide information on the impacts of incidents that occur on our freeway system. Grant always prioritizes requests from others and provides timely and accurate information. One such example is when we had a tanker truck spill on the I-15/I-215 interchange at the south end of the valley. The UDOT Communications office needed a way to communicate the traffic impact. Grant worked with them to create a time-lapse video that showed the impact to traffic, that was ultimately used by KSL on the 10 pm news broadcast. He did this without being asked, in a short timeframe, and worked outside of normal business hours to make it happen. This is typical of Grant.

Grant is dedicated to customer service which is evident in the number of follow up requests for his services. He continues to attack each new request with a smile on his face and a desire to help the partner group to be successful. Grant provides critical thinking and problem solving to all of his assignments that represent a level of understanding far beyond his years of experience. We appreciate having Grant as part of our team and know that he is providing a significant service and benefit to the taxpayers of Utah.

Thank you Grant!

Traffic Management Division, Leader of the Year



Corey Coulam is the Traffic Management Division's 2017 Leader of the Year. Corey is UDOT's Control Room Manager at the Traffic Operations Center, with responsibility for a staff of operators that monitor and manage traffic in real-time 24/7/365. Under Corey's leadership, the Control Room is functioning at a very high level. Corey leads by example and provides consistent leadership, even in the most challenging of situations. In the short time Corey has been at the TMD, nearly every TMD group has benefited, either directly or indirectly, from his efforts. Customer service has greatly improved to UDOT's partners and the public, processes have been streamlined for field technicians and agency partners and morale and tenure in the control room has gone up by a significant margin. All of these outcomes are the direct result of Corey's efforts.

Corey has a commitment to collaboration. By nature, his job is a challenging one with "many bosses." Corey functions at a level that is far beyond his years. He is smart, dedicated and thorough. He sees things through because of the benefits and results... even when we lack consensus or the project is a major challenge. He has taken on projects that are outside of his comfort area or responsibility because he understands the importance. Where many would (and have) shied away, Corey jumps in with both feet.

The successes that all of UDOT have experienced because of Corey's exemplary leadership are on a statewide basis. His position is difficult on a day-to-day basis and there is little opportunity for recognition. Corey's efforts do not in any way result in him being a "yes man" either... his role routinely – on a 24/7/365 basis – has him discussing options and refining requests with high-level law enforcement, management and partners during tense emergency situations.

Corey is a true role model. Anyone who has had the privilege to work with Corey has learned something from him. He represents UDOT at its finest and is wholeheartedly deserving to be UDOT's Leader of the Year.

Thank you Corey!

Traffic Management Division, Career Achievement



John Leonard is the Traffic Management Division's 2017 Career Achievement recipient. John has been with the Department for 33 years. He is currently serving as the Traffic Operations Engineer in the TMD, with responsibility for Control Room functions, freeway operations including ramp metering and Express Lanes, Weather Operations, Emergency Management and Incident Management. John's past assignments include 14 years in the Traffic and Safety Division, where he ironically had the same title that he has now, Traffic Operations Engineer. In that role he was responsible for freeway signing, the Utah MUTCD, roadside barriers and crash cushions, traffic control, standard drawings, design exceptions, access control, UTA/FRA coordination, and expert witness duties. Prior to that John was on the original I-15 Corridor Reconstruction Project, where he had the unique title of Traffic Operations Engineer. Responsibilities on the I-15 project included oversight over traffic-related elements in design and MOT, project spokesman duties, RFP development, and pavement maintenance during construction. Prior to I-15, John was in Region 2 as the Region Traffic Engineer. John started his UDOT career in Construction in Region 2 as a Chief of Survey Party and later became a Field Engineer.

John has made a difference in a number of areas over the years, some of which are probably not widely known. His accomplishments include leading or assisting with the following: the creation of the original IMT Program, which started in Region 2; the creation of the Utah MUTCD, which replaced the FHWA version of the MUTCD; the development of Utah school zone signing and striping standards, which led to a Utah school zone manual and ultimately became Part 7 of the Utah MUTCD; numerous MUTCD modifications coordinated through his position as chair of a National MUTCD Technical Committee, including freeway interstate signing standards for multi-lane off-ramps; and numerous court cases where John acted as expert witness that were decided in UDOT's favor, saving taxpayers millions of dollars.

John has spent his career advocating for and working to improve the safety of our roadway system. He has been and continues to be a champion for safety. Surely there are people alive today because of his efforts.

Thank you John for all your hard work over the years!



Acronyms

CCTV	Closed Circuit Television	DPS	Department of Public Safety
EIS	Emergency Information System	HAR	Highway Advisory Radio
I2TMS	Integrated Interagency Traffic Management System		
ITS	Intelligent Transportation System	LFOT	Local Field Operations Test
MIC	Manager in Charge	MOT	Maintenance of Traffic
RWIS	Road-Weather Information System	TAC	Technical Advisory Committee
TMD	Traffic Management Division	TMS	Traffic Monitoring Station
TOC	Traffic Operations Center	VMS	Variable Message Sign

June is the sixth month of the year in the Julian and Gregorian calendars and the second month to have the length of 30 days.
Number of days: 30

